RECEIVED
CENTRAL FAX CENTER

APR 2 5 2007

AMENDMENTS

In the Claims:

1. (Currently Amended)   A virtualizing microarray_**system** comprising:
a **physical** catalog microarray ~~containing~~ **comprising:**

a number of features, each feature containing a type of
probe molecule designed to bind a target molecule; **and**

a memory element data, physically associated with the
catalog microarray, **wherein said memory element comprising**
that describes each feature of the catalog microarray; and
logic that generates a virtual microarray ~~from the virtualizing~~
~~microarray, the virtual microarray comprising~~ **comprising** data describing a
subset of the features of the catalog microarray.

2. (Currently Amended)   The virtualizing microarray **system** of claim 1
wherein the data describing a feature of the catalog microarray includes:
data that identifies a position of the feature within the catalog microarray;
data that identifies the type of probe molecules contained in the feature;
and
data that describes the target molecule of the probe molecules contained
in the feature.

3. (Currently Amended)   The virtualizing microarray **system** of claim 2
wherein the data that describes the target molecule of the probe molecules
contained in the feature includes:
data that describes an immediate target molecule to which the probe
molecules bind.

4. (Currently Amended)   The virtualizing microarray **system** of claim 2
wherein the data that describes the target molecule of the probe molecules
contained in the feature includes:

2

data that describes a biological molecule produced by synthesis directed by an immediate target molecule to which the probe molecules bind.

5. (Currently Amended)   The virtualizing microarray **system** of claim 2 wherein the data that describes the target molecule of the probe molecules contained in the feature further includes:

data describing molecular function;

data describing a biological process; and

data describing a cellular component.

6. (Currently Amended)   The virtualizing microarray **system** of claim 1 wherein the logic that generates a virtual microarray ~~from the virtualizing microarray~~-includes:

logic that allows specification of masks related to the data describing each feature of the catalog microarray; and

logic that uses the specified masks to filter the features of the catalog microarray to produce the data describing a subset of the features of the catalog microarray.

7. (Currently Amended)   The virtualizing microarray **system** of claim 1**,** **wherein said system comprises** ~~included in~~ one of:

a microarray scanner;

a microarray-data processing system;

a microarray-data visualization system.

8. (Cancelled)

9. (Currently Amended)   The virtualizing microarray **system** of claim 1 wherein the catalog microarray further includes a header that allows the logic to associate data describing each feature of the catalog microarray with a catalog microarray identified by information contained in the header.

3